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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | Date: 08-02-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	11-01-2021
Sample Type	C.C Road Top Layer
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M30/ 28 Days Compressive Strength
Date of Test	08-02-2021
Location	

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Trsting	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.69	706	31.4	31.23
2	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.54	699	31.1	
3	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.9	703	31.2	

Remarks :

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.8) | Date: 08-02-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	11-01-2021
Sample Type	C.C Road Top Layer
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M30/ 28 Days Compressive Strength
Date of Test	08-02-2021
Location	

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Trsting	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.55	702	31.2	31.06
2	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.4	695	30.9	
3	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.76	699	31.1	

Remarks :

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | Date: 08-02-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	11-01-2021
Sample Type	C.C Road Top Layer
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M30/ 28 Days Compressive Strength
Date of Test	08-02-2021
Location	

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Trsting	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.23	712	31.6	31.50
2	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.08	705	31.4	
3	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.44	709	31.5	

Remarks :

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5)

Date: 08-02-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	11-01-2021
Sample Type	C.C Road Top Layer
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M30/ 28 Days Compressive Strength
Date of Test	08-02-2021
Location	

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Trsting	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.11	709	31.5	31.37
2	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	7.96	702	31.2	
3	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.32	706	31.4	

Remarks :

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | Date: 08-02-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	11-01-2021
Sample Type	C.C Road Top Layer
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M30/ 28 Days Compressive Strength
Date of Test	08-02-2021
Location	

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Trsting	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.19	714	31.7	31.59
2	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.04	707	31.4	
3	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.4	711	31.6	

Remarks :

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) — Date: 08-02-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	11-01-2021
Sample Type	C.C Road Top Layer
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M30/ 28 Days Compressive Strength
Date of Test	08-02-2021
Location	

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Trsting	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.1	720	32.0	31.86
2	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	7.95	713	31.7	
3	C.C Road	M30	11-01-2021	08-02-2021	150x150x150	22500	8.31	717	31.9	

Remarks :

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Test Report of Aggregate Impact Value

IS: 2386 Part-IV

Date: 21-12-2020

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	21-12-2020

Sl. No	Particulars of Observations	Index	Test-1	Test-2
1	Total weight of the surface dry sample (passing 12.5mm and retained on 10mm sieve)	A	300.1	300.5
2	Weight of fraction passing 2.36 mm sieve after giving 15 blows	B	73.9	74
3	Weight of fraction passing 2.36 mm sieve after giving 15 blows	C	225.9	225.9
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made	A-(B+C)	0.3	0.6
5	Aggregate impact value	(B/A)x100	24.63	24.63
6	Aggregate impact value (Mean of two tests)	Percentage	24.63	

Remarks :

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Test Reults of Gradation for GSB (Granular Sub Base)

MORT&H (Section 400, Table 400-1) | Date: 21-12-2020

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)-Grading V
Date of Test	21-12-2020
Total wt of the sample (gms):	11000

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 400-1)	Remarks
75	0	0	0.0	100	100	Satisfactory
53	315	315	2.9	97.1	80-100	Satisfactory
26.5	2259	2574	23.4	76.6	55-90	Satisfactory
9.5	2179	4753	43.2	56.8	35-65	Satisfactory
4.75	2251	7004	63.7	36.3	25-50	Satisfactory
2.36	1820	8824	80.2	19.8	10-20	Satisfactory
0.85	1212	10036	91.2	8.8	2-10	Satisfactory
0.425	911	10947	99.5	0.5	0-5	Satisfactory

Remarks: Satisfactory

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Test Results Of Gradation for GSB (Granular Sub Base)

IS 2386 Part 1 &2

Date: 21-12-2020

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	21-12-2020
Location	

Description of materials:	GSB-V		
MDD (gm/cc) =	2.180	OMC(%) =	5.20
Bulk Density of sand:	1.395	Sand retained in cone (gm)=	395.4

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of soil from hole (w2) gm:	2420.2	2402.6
2	Wt of sand + cylinder before pouring(gm) (w3)	7180	7180
3	Wt of sand+ cylinder after pouring (gm)(w4)	5285.2	5299.6
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	1499.4	1485
5	Volume of sand in hole (V = W5/Ysand)	1074.84	1064.52
6	Bulk density (gm/cc) (Yb= W2/v)	2.252	2.257
7	Moisture meter reading (%)	5.50	5.40
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.155	2.150
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	**98.84**	**98.60**
10	Required degree of compaction, (%) ,As per MORT&H 5th specification. .	**98.72**	

Remarks:Found to be Satisfactory.

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Test Reults of Gradation for GSB (Granular Sub Base)

IS: 2386 Part-8 &29	Date: 21-12-2020

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	21-12-2020
Location	

Description of materials:	GSB-V		
MDD (gm/cc) =	2.180	OMC(%) =	5.20
Bulk Density of sand:	1.395	Sand retained in cone (gm)=	395.4

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of soil from hole (w2) gm:	2405.3	2407.2
2	Wt of sand + cylinder before pouring(gm) (w3)	7180	7180
3	Wt of sand+ cylinder after pouring (gm)(w4)	5283.7	5301.5
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	1500.9	1483.1
5	Volume of sand in hole (V = W5/Ysand)	1075.91	1063.15
6	Bulk density (gm/cc) (Yb= W2/v)	2.236	2.264
7	Moisture meter reading (%)	5.20	5.35
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.139	2.156
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	**98.13**	**98.92**
10	Required degree of compaction, (%) ,As per MORT&H 5th specification.	**98.53**	

Remarks:Found to be Satisfactory.

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Test Report of Aggregate Impact Value

IS: 2386 Part-IV | Date: 2-01-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	2-01-2021

Sl. No	Particulars of Observations	Index	Test-1	Test-2
1	Total weight of the surface dry sample (passing 12.5mm and retained on 10mm sieve)	A	300.2	300.4
2	Weight of fraction passing 2.36 mm sieve after giving 15 blows	B	75.6	74.25
3	Weight of fraction passing 2.36 mm sieve after giving 15 blows	C	224.15	225.9
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made	A-(B+C)	0.45	0.25
5	Aggregate impact value	(B/A)x100	25.18	24.72
6	Aggregate impact value (Mean of two tests)	Percentage	24.95	

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Test Reults of Gradation for GSB (Granular Sub Base)

MORT&H (Section 400, Table 400-1) | Date: 2-01-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)-Grading V
Date of Test	2-01-2021
Total wt of the sample (gms):	11000

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 400-1)	Remarks
75	0	0	0.0	100	100	Satisfactory
53	315	315	2.9	97.1	80-100	Satisfactory
26.5	2259	2574	23.4	76.6	55-90	Satisfactory
9.5	2179	4753	43.2	56.8	35-65	Satisfactory
4.75	2251	7004	63.7	36.3	25-50	Satisfactory
2.36	1820	8824	80.2	19.8	10-20	Satisfactory
0.85	1212	10036	91.2	8.8	2-10	Satisfactory
0.425	911	10947	99.5	0.5	0-5	Satisfactory

Remarks: Satisfactory

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Test Reults of Gradation for GSB (Granular Sub Base)

IS: 2386 Part-8 &29	Date: 2-01-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	2-01-2021
Location	

Description of materials:	GSB-V		
MDD (gm/cc) =	2.180	OMC(%) =	5.20
Bulk Density of sand:	1.395	Sand retained in cone (gm)=	395.4

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of soil from hole (w2) gm:	2410.5	2404.6
2	Wt of sand + cylinder before pouring(gm) (w3)	7180	7180
3	Wt of sand+ cylinder after pouring (gm)(w4)	5285.4	5301.5
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	1499.2	1483.1
5	Volume of sand in hole (V = W5/Ysand)	1074.695341	1063.15
6	Bulk density (gm/cc) (Yb= W2/v)	2.243	2.262
7	Moisture meter reading (%)	5.20	5.30
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.146	2.154
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	**98.46**	**98.81**
10	Required degree of compaction, (%) ,As per MORT&H 5th specification.	**98.63**	

Remarks:Found to be Satisfactory.

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Test Reults of Gradation for GSB (Granular Sub Base)

IS: 2386 Part-8 &29	Date: 2-01-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	2-01-2021
Location	

Description of materials:	GSB-V		
MDD (gm/cc) =	2.180	OMC(%) =	5.20
Bulk Density of sand:	1.395	Sand retained in cone (gm)=	395.4

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of soil from hole (w2) gm:	2412.3	2400.5
2	Wt of sand + cylinder before pouring(gm) (w3)	7180	7180
3	Wt of sand+ cylinder after pouring (gm)(w4)	5289.6	5298.9
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	1495	1485.7
5	Volume of sand in hole (V = W5/Ysand)	1071.684588	1065.02
6	Bulk density (gm/cc) (Yb= W2/v)	2.251	2.254
7	Moisture meter reading (%)	5.25	5.15
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.154	2.147
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	**98.81**	**98.47**
10	Required degree of compaction, (%) ,As per MORT&H 5th specification.	**98.64**	

Remarks:Found to be Satisfactory.

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Test Reults of Gradation for GSB (Granular Sub Base)

IS: 2386 Part-8 &29	Date: 2-01-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	2-01-2021
Location	

Description of materials:	GSB-V		
MDD (gm/cc) =	2.180	OMC(%) =	5.20
Bulk Density of sand:	1.395	Sand retained in cone (gm)=	395.4

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of soil from hole (w2) gm:	2415.6	2395.4
2	Wt of sand + cylinder before pouring(gm) (w3)	7180	7180
3	Wt of sand+ cylinder after pouring (gm)(w4)	5286.5	5306.3
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	1498.1	1478.3
5	Volume of sand in hole (V = W5/Ysand)	1073.91	1059.71
6	Bulk density (gm/cc) (Yb= W2/v)	2.249	2.260
7	Moisture meter reading (%)	5.30	5.35
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.152	2.153
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	**98.74**	**98.75**
10	Required degree of compaction, (%) ,As per MORT&H 5th specification.	**98.74**	

Remarks:Found to be Satisfactory.

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Test Report of Aggregate Impact Value

IS: 2386 Part-IV | Date: 10-01-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	10-01-2021

Sl. No	Particulars of Observations	Index	Test-1	Test-2
1	Total weight of the surface dry sample (passing 12.5mm and retained on 10mm sieve)	A	300.4	300.1
2	Weight of fraction passing 2.36 mm sieve after giving 15 blows	B	76.2	73.8
3	Weight of fraction passing 2.36 mm sieve after giving 15 blows	C	223.7	225.9
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made	A-(B+C)	0.5	0.4
5	Aggregate impact value	(B/A)x100	25.37	24.59
6	Aggregate impact value (Mean of two tests)	Percentage	24.98	

Remarks :

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Test Reults of Gradation for GSB (Granular Sub Base)

MORT&H (Section 400, Table 400-1) | Date: 10-01-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)-Grading V
Date of Test	10-01-2021
Total wt of the sample (gms):	11000

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 400-1)	Remarks
75	0	0	0.0	100	100	Satisfactory
53	315	325	3.0	97.0	80-100	Satisfactory
26.5	2259	2579	23.4	76.6	55-90	Satisfactory
9.5	2179	4765	43.3	56.7	35-65	Satisfactory
4.75	2251	7025	63.9	36.1	25-50	Satisfactory
2.36	1820	9025	82.0	18.0	10-20	Satisfactory
0.85	1212	10250	93.2	6.8	2-10	Satisfactory
0.425	911	10925	99.3	0.7	0-5	Satisfactory

Remarks: Satisfactory

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Test Reults of Gradation for GSB (Granular Sub Base)

IS: 2386 Part-8 &29	Date: 10-01-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	44206
Location	

Description of materials:	GSB-V		
MDD (gm/cc) =	2.180	OMC(%) =	5.20
Bulk Density of sand:	1.395	Sand retained in cone (gm)=	395.4

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of soil from hole (w2) gm:	2421.2	2407.5
2	Wt of sand + cylinder before pouring(gm) (w3)	7180	7180
3	Wt of sand+ cylinder after pouring (gm)(w4)	5287.1	5298.3
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	1497.5	1486.3
5	Volume of sand in hole (V = W5/Ysand)	1073.476703	1065.45
6	Bulk density (gm/cc) (Yb= W2/v)	2.255	2.260
7	Moisture meter reading (%)	5.20	5.30
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.158	2.152
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	**99.01**	**98.72**
10	Required degree of compaction, (%) ,As per MORT&H 5th specification.	**98.86**	

Remarks:Found to be Satisfactory.

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Test Reults of Gradation for GSB (Granular Sub Base)

IS: 2386 Part-8 &29	Date: 10-01-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	44206
Location	

Description of materials:	GSB-V		
MDD (gm/cc) =	2.180	OMC(%) =	5.20
Bulk Density of sand:	1.395	Sand retained in cone (gm)=	395.4

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of soil from hole (w2) gm:	2425.2	2415.5
2	Wt of sand + cylinder before pouring(gm) (w3)	7180	7180
3	Wt of sand+ cylinder after pouring (gm)(w4)	5274.2	5288.6
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	1510.4	1496
5	Volume of sand in hole (V = W5/Ysand)	1082.724014	1072.40
6	Bulk density (gm/cc) (Yb= W2/v)	2.240	2.252
7	Moisture meter reading (%)	5.05	5.30
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.143	2.145
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	**98.32**	**98.40**
10	Required degree of compaction, (%) ,As per MORT&H 5th specification.	**98.36**	

Remarks:Found to be Satisfactory.

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Test Reults of Gradation for GSB (Granular Sub Base)

IS: 2386 Part-8 &29	Date: 10-01-2021

Name of Work : Comprehensive Development works in ward No. 03 Attur

Client	Bruhat Bengalore Mahanagara Palike (BBMP) ,Yelahanka Zone,Bengaluru.
Contractor	B.B Umesh (S.M.L.P Asphats)
Customer Reference	EE(PROJECT)/YNK ZONE/WO/173/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Type of Mix	Coarse Aggregate for GSB (Granular Sub Base)
Date of Test	44206
Location	

Description of materials:	GSB-V		
MDD (gm/cc) =	2.180	OMC(%) =	5.20
Bulk Density of sand:	1.395	Sand retained in cone (gm)=	395.4

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of soil from hole (w2) gm:	2403.8	2398.6
2	Wt of sand + cylinder before pouring(gm) (w3)	7180	7180
3	Wt of sand+ cylinder after pouring (gm)(w4)	5289.7	5302.5
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	1494.9	1482.1
5	Volume of sand in hole (V = W5/Ysand)	1071.61	1062.44
6	Bulk density (gm/cc) (Yb= W2/v)	2.243	2.258
7	Moisture meter reading (%)	5.40	5.35
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.147	2.150
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	**98.47**	**98.63**
10	Required degree of compaction, (%) ,As per MORT&H 5th specification.	**98.55**	

Remarks:Found to be Satisfactory.

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